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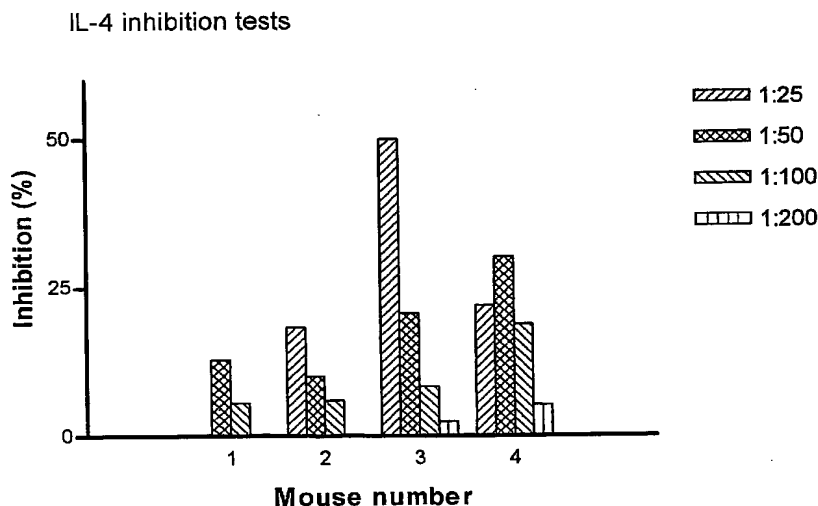
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(54) Title: PEPTIDE-BASED CYTOKINE/CHEMOKINE VACCINES AGAINST ALLERGY



(57) Abstract: This invention relates to the methods and materials involved in the prevention and treatment of allergy. The inventors have identified a number of key peptides derived from the receptor binding sites of Th2 cytokines/chemokines such as interleukin (IL)-4, -5, -9, -13, -25, eotaxin and TARC and from the cytokine/chemokine binding sites of their receptors such as IL-4R α . These peptides are made immunogenic by linkage to a carrier protein such as the Hepatitis B surface antigen (HBsAg) or the Hepatitis core antigen (HBcAg) via construction of a fusion protein or chemical methods to form a vaccine compound. The vaccine which consists of the vaccine compound and a human adjuvant can be used to down regulate allergic responses induced by over-expressed Th2 cytokines and chemokines. The vaccine itself or in combination with its DNA form induces autoantibodies which bind to cytokines/chemokines, thus reversing and preventing allergic responses for a long term.

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